NETL Event Management
U.S. Department of Energy
National Energy Technology Laboratory
626 Cochrans Mill Road
P.O. Box 10940, MS 922-174A
Pittsburgh, PA 15236-0940

Preliminary Program

16th Annual Conference on Fossil Energy Materials

Wyndham Inner Harbor Hotel
Baltimore, Maryland
April 22-24, 2002

General Information

Hotel

The Wyndham Baltimore Inner Harbor Hotel, located at 101 West Fayette Street, Baltimore, MD 21201, will be the official hotel for the Conference. The Conference rate is $110.00 for a single room and $130.00 for a double plus 12.5% tax. The Wyndham Baltimore Inner Harbor Hotel is nestled in the heart of the Baltimore business district. The Baltimore Washington International Airport is located eight miles. Amtrak's Penn Station is located two miles north.

For reservations, contact the hotel directly at (410)752-1100. You must reference the U.S. Department of Energy to receive this special group rate listed above. A block of rooms for this conference will be held until April 1, 2002. Check in time is 4:00 p.m. and check-out time is 12:00 noon.

Transportation

Super Shuttle (Service to and from BWI) or 1-800-258-3826

$11.00 per person, one way ...$18.00 per person, round trip

Service starts at approximately 5:30 am - 10:00 pm, and runs every 30 minutes. The shuttle information booth is located on the ground level of the airport, follow signs to the ground transportation booth. No reservation is required. For shuttle reservation returning to the airport, please contact the hotel's Bell Captain to obtain a schedule of departure times.

Hotel Parking

The Wyndham Baltimore Inner Harbor parking garage offers discounted rates to overnight guests. Charges are listed below:

Front Door Overnight Valet - $22.00 includes unlimited in and out privileges

Front Door Daily Visitor - $15.00 no unlimited in and out privileges

Garage Parking Overnight - $16.00 unlimited in and out privileges

Hourly Rates:	0 - 1/2 hour -	$3.00
	1/2 hour - 1 hour -	$6.00
	1 - 2 hours -	$9.00
	2 - 4 hours -	$11.00
	4 - 8 hours -	$13.00
	8 - 24 hours -	$16.00

The Wyndham Baltimore Inner Harbor garage is not managed by the Hotel. Prices are subject to change without notice. The garage is open to the public and space cannot be guaranteed or reserved.

General Information

Driving directions from BWI Airport

Take 195 West to 95 North. Take Exit 53 (395 North). Follow 1/2 mile and turn right on Pratt Street. Proceed 3 blocks and turn left on Charles Street. Proceed 3-4 blocks and turn left on Fayette Street. The hotel is 1 block ahead on the left.

Registration Fee

$130.00

This fee is to cover the cost of a reception, continental breakfasts, lunch, and conference breaks.

Registration fee cannot be refunded after April 5, 2002.

The registration deadline is April 12, 2002. To register complete the registration form included in this announcement and mail or fax to NETL Event Management (address and number listed below).

Foreign National Visitor Notice

All foreign nationals who wish to attend DOE sponsored conferences, meetings, workshops, or seminars are required to submit NETL Form F142.1-1 requesting a DOE unclassified visit. A minimum of 45 days advance notice is required for the review and approval process for unclassified foreign national visits. A foreign national is any person who is not a U.S. Citizen and includes permanent resident alien (PRAs or "green card holder").

NETL supports an active program of unclassified visits by foreign nationals. International cooperation and collaboration is an important element within our program. NETL is required to ensure that these visits are conducted under prescribed conditions in a manner consistent with the U.S. Department of Energy's policies.

Visit us on our website for updates at http://www/netl.doe.gov (click on Events) or contact Karen Lockhart, CMP at (412)386-4763.

NETL Event Management

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Agenda

Monday, April 22

Registration 12:00 – 1:00 P.M.

1:00 **Welcome**
Roddie R. Judkins, Fossil Energy Program Director, Oak Ridge National Laboratory

Robert R. Romanosky, Product Manager, Advanced Research, National Energy Technology Laboratory

1:10 **Introductory Remarks**
Rita A. Bajura, Director, National Energy Technology Laboratory

Session I – Functional Materials

1:25 **Introductory Remarks**
Timothy R. Armstrong, Oak Ridge National Laboratory

1:30 **Invited Presentation**
Timothy C. Golden, Air Products and Chemicals, Inc.

1.55 *Development of Novel Activated Carbon Composites*
Timothy D. Burchell, Oak Ridge National Laboratory

2.20 *A Multiprogram Initiative to Develop Hydrogen Separation and Purification Membranes*
Douglas A. Loy, Sandia National Laboratory

2.45 *Development of Inorganic Membranes for Gas Separation*
Douglas E. Fain, East Tennessee Technology Park

3:10 **Break**

3:30 *Proton Conducting Membranes*
Anthony Sammels, Eltron Research, Inc.

3.55 *Economical Fabrication of Membrane Materials*
Timothy R. Armstrong, Oak Ridge National Laboratory

4.20 *Glass Seals for Separation Membranes,*
Larry R. Pederson, Pacific Northwest National Laboratory

4.45 *Metallic Filters for Hot Gas Cleaning*
Iver M. Anderson, Ames Laboratory

Monday, April 22 (Session I Continued)

5.10 **Adjourn**

5:30 **Invited Presentation**
"*Collaborations between BES and FE*," *Speaker TBD*

6.00 **Reception and Poster Session**

Tuesday, April 23

7:30 **Registration/Continental Breakfast**

Session II – Coatings and Protection of Materials

8:30 **Introductory Remarks**

8:40 **Invited Presentation**
Robert A. Rapp, The Ohio State University

9.10 *Investigation of Iron Aluminide Weld Overlays*
John N. DuPont, Lehigh University

9:35 *Coating Microstructure-Property Issues*
Richard N. Wright, Idaho National Engineering and Environmental Laboratory

10.00 **Break**

10:30 *Extended Lifetime Metallic Coatings*
Bruce A. Pint, Oak Ridge National Laboratory

10:55 *Slurry-Based Mullite Coatings for Corrosion Resistance*
Beth L. Armstrong, Oak Ridge National Laboratory

11.20 *Development of Nondestructive Evaluation Methods for Ceramic Coatings*
William A. Ellingson, Argonne National Laboratory

11:45 *High Temperature Materials Testing in Coal Combustion Environments*
Mahendra P. Mathur and Mark C. Freeman, National Energy Technology Laboratory

12.10 **Group Lunch**

Tuesday, April 23

Session III – New Alloys

2.00	**Introductory Remarks**
2.10	*Collaborative Program on Materials for USC Steam Conditions* Robert W. Swindeman, Oak Ridge National Laboratory
2.35	*Fireside Corrosion of Alloys for USC plants* Ken Natesan, Argonne National Laboratory
3:00	*USC Materials Plant Trials at Niles* Dennis McDonald, McDermott
3:25	**Break**
3.45	*ODS Alloy Development* Ian G. Wright, Oak Ridge National Laboratory
4.10	*Optimization of ODS Alloy Properties* Bimal Kad, University of California at San Diego
4.35	*High Creep-Strength Alloys* Philip J. Maziasz, Oak Ridge National Laboratory (CRADA with INCO)
5:00	**Adjourn**

Wednesday, April 24

7:30	**Continental Breakfast**

Session IV – Breakthroughs in Materials Performance and Reliability

8:30	**Introductory Remarks**
8:40	**Invited Presentation** *John Stringer, EPRI*
10.10	*Strategies for Alloy Design* Michael P. Brady, Oak Ridge National Laboratory

Wednesday, April 24 (Session IV Continued)

9.35	*Mo-Si Alloy Development* Joachim H. Schneibel, Oak Ridge National Laboratory
10.00	**Break**
10.30	*Development of a Commercial Process for the Production of Silicon Carbide Fibrils* Richard D. Nixdorf, ReMaxCo Technologies, Inc
10.55	*Improved Refractories for IGCC Power Systems* Cynthia P. Dôgan, Kwong, Kyei-Sing (Jasper), Cheryl L. Dahlin, James P. Bennett, and Richard E. Chinn, Albany Research Center
11.20	*Improved ODS Alloy for Heat Exchanger Tubing* Mark A. Harper, Special Metals Corp.
11:45	**Closing Remarks**
12.00	Adjourn

Posters

Functional Materials

Efficient Production of Pure Hydrogen from Hydrocarbons Using Palladium Membrane Reactors
Stephen A. Birdsell, Los Alamos National Laboratory

Synthesis and Properties of Materials for Hydrogen Separation Membranes
Robert Carneim, Oak Ridge National Laboratory

CO_2 Removal From Air (CRADA With ZeTek Power)
Timothy D. Burchell, Oak Ridge National Laboratory

Coatings and Protection of Materials

Chemically Vapor Deposited YSZ for Thermal and Environmental Barrier Coatings
Theodore M. Besmann, Jerry C. McLaughlin, Oak Ridge National Laboratory and V. Varanasi, University of Florida

Aluminide Coatings for Power Generation Applications
Y. Zhang, Tennessee Technology University

Posters

Coatings and Protection of Materials (Continued)

High-Temperature Materials Testing in a Pilot-Scale Coal Combustion System
John Hurley and C. R. Crocker, University of North Dakota, Energy and Environmental Research Center

Modeling of Chemically Vapor Deposited Zirconia for Thermal Barrier and Environmental Barrier Coatings
Thomas Starr, University of Louisville

New Alloys

Reduction in Defect Content in ODS Alloys
Andrew R. Jones, University of Liverpool

In-Plant Corrosion Probe Tests
Jeffrey L. Blough, Foster-Wheeler Development Corporation

Breakthroughs in Materials Performance and Reliability

Evaluation of the Intrinsic and Extrinsic Fracture Behavior of Iron Aluminides
Bernard R. Cooper, West Virginia University

Study of Fatigue and Fracture Behavior of Cr-Based Alloys and Intermetallic Materials
Peter Liaw, University of Tennessee

Weldability of Intermetallics and High-Si Alloys
Glen R. Edwards, Colorado School of Mines

Concepts for Smart, Protective High-Temperature Coatings
Peter F. Tortorelli, Oak Ridge National Laboratory

Novel Processing of Mo-Si-B Intermetallics for Improved Efficiency of Power Systems
Matthew J. Kramer, Ames Laboratory

Multi-Phase Cr-Based Alloys for Aggressive High-Temperature Environments
Michael P. Brady, Oak Ridge National Laboratory

Modeling of Sintering Multi-Layered Membranes
Timothy R. Armstrong, Oak Ridge National Laboratory

Notes